1   1.   A server based system for classification of images suspected as pornographic

2   comprising:

3   (a)   a first defined interface between a client application and said server for

4   transferring images and related meta data;

5   (b)   a database for storing and queuing the images and meta data associated

6   with said image;

7   (c)   independent engine apparatus for automatically analyzing the images

8   using a plurality of independent review engines for a plurality of

9   criteria for analyzing results from said plurality of independent review

10   engines of said images into a single parameter representing a

11   likelihood value that an image is of pornographic nature;

12   and

13   (d)   a second defined interface to convey a result of said analyzing to said

14   client application, said result including a list of most suspected images.

1   2.   A server based system for classification of images suspected as pornographic

2   as recited in claim 1 wherein said automatic analyzing eliminates a majority of said images

3   and is performed using color analysis on skin tone.

1   3.   A server based system for classification of images suspected as pornographic

2   as recited in claim 1 wherein said automatic analyzing eliminates a majority of said images

3   and is performed using a shape analysis.

1   4.   A server based system for classification of images suspected as pornographic

2   as recited in claim 1 wherein said automatic analyzing eliminates a majority of said images

3   and is performed by means of a curvature analysis.

1   5.   A server based system for classification of images suspected as pornographic

2   as recited in claim 1 wherein said automatic analyzing eliminates a majority of said images

3   and is performed by texture analysis.

1   6.   A server based system for classification of images suspected as pornographic

2   as recited in claim 1 wherein said automatic analyzing eliminates a majority of said images

3   and is performed by means of body pose and posture analysis.

1   7.   A server based system for classification of images suspected as pornographic

2   as recited in claim 1 wherein said automatic analyzing eliminates a majority of said images

3   and is performed by means of a combination of color analysis on skin tone, shape analysis,

4   curvature analysis, texture analysis, body pose and posture analysis.

1   8.   A server based system for classification of images suspected as pornographic

2   as recited in claim 1 wherein said images are clustered as a collection and said analyzing is

3   performed on said cluster.

1   9.   A server-based system for classification of images suspected as pornographic

2   as recited in claim 8 wherein said analyzing of said cluster includes determining a collective

3   likelihood of the cluster based on combined statistical estimation of individual images in the

4   cluster.

1   10.   A server based system for classification of images suspected as pornographic

2   as recited in claim 1 further comprising:

3   (a)   a first apparatus for performing an additional automated step to

4   eliminate a majority of said images that are positively non-

5   pornographic based on said likelihood value;

6   and

7   (b)   a second apparatus for performing a manual review performed by

8   human reviewers to determine whether said most suspected images are

9   pornographic.

1   11.   A server based system for classification of images suspected as pornographic

2   as recited in claim 10 further comprising an apparatus for creating a queue of said most

3   suspected images for said manual review based on a priority criteria.

1   12.   A server based system for classification of images suspected as pornographic

2 as recited in claim 10 wherein said reviewers assign a rating to each image.

1   13.   A server based system for classification of images suspected as pornographic

2 as recited in claim 10 wherein said reviewers assign a rating to a cluster of images.

1   14.   A server based system for classification of images suspected as pornographic

2 as recited in claim 10 wherein said reviewers are supervised by a supervisor.

1   15.   A server-based system for classification of images suspected as pornographic

2 as recited in claim 14 wherein said reviewers can escalate images that they are uncertain of to

3 said supervisor for determining if said images that said reviewers are uncertain of are

4 pornographic.

1   16.   A server based system for classification of images suspected as pornographic

2 as recited in claim 11 wherein said priority criteria is a number of page views requested for

3 the image.

1   17.   A server-based system for classification of images suspected as pornographic

2 as recited in claim 11 wherein said priority criteria is a statistical likelihood of a said image

3 being pornographic.

1   18.   A server-based system for classification of images suspected as pornographic

2 as recited in claim 10 further comprising apparatus for creating a queue of a collection of

3 images based on a priority criteria.

1   19.   A server based system for classification of images suspected as pornographic

2 as recited in claim 18 wherein said priority criteria is the percent of said suspected images in

3 said collection of images.

1   20.   A server based system for classification of images suspected as pornographic

2 as recited in claim 18 wherein said priority criteria is the total number of said suspected

3 images within said collection of images.

1   21. A server based system for classification of images suspected as pornographic

2 as recited in claim 1 wherein said images are sub sampled to the smallest image size available

3 which maintains sufficient data for said classification thus saving on transmission time

4 memory and bandwidth.

1   22. A server based system for classification of images suspected as pornographic

2 as recited in claim 1 wherein said client application is run on a remote computer, said images

3 suspected as pornographic obtained from a data storage subsystem of said computer, and said

4 system further comprising:

5   (a) a first apparatus for performing an additional automated step to

6   eliminate most images that are positively non-pornographic based on

7   said likelihood value thus maintaining only small numbers of

8   suspected images from said analyzing;

9   (b) a second apparatus for submitting images for a manual review step

10   performed by a human reviewer to determine whether said suspected

11   images from said automated step are pornographic;

12   and

13   (c) a third apparatus for performing a clean-up step to allow the deletion of

14   the objectionable pornographic images from said remote computer.

1   23. A server-based system for classification of images suspected as pornographic

2 as recited in claim 8 wherein said cluster is a continuous collection of individual frames,

3 which creates a single motion-picture clip.

1   24. A server based system for classification of images suspected as pornographic

2 as recited in claim 23 wherein a selection of said individual frames from said cluster for said

3 classification is determined by automatic detection of a change of scene in said motion

4 picture clip.

1   25. A server based system for classification of images suspected as pornographic

2 as recited in claim 23 wherein a selection of said individual frames from said cluster for said

3 classification is determined by a predefined interval of said individual frames.

1   26.   A server-based system for classification of images suspected as pornographic

2   as recited in claim 8 wherein said cluster is a continuous collection of motion-picture clip.

1   27.   A server based system for classification of copyrighted images comprising:

2   (a)   a first-defined interface between a client application and a server to

3   transfer images and related meta data;

4   (b)   a database to store and queue the images and said related meta data;

5   (c)   independent engine apparatus to automatically analyze the images

6   using a plurality of criteria related to copyright material;

7   (d)   apparatus for analyzing the individual reviews into a single parameter

8   representing a likelihood value that an image is copyrighted;

9   and

10   (e)   a second-defined interface for conveying a result to said client

11   application.

1   28.   A server based system for classification of copyrighted images as recited in

2   Claim 27 wherein said criteria include watermarking.

1   29.   A server based system for classification of copyrighted images as recited in

2   Claim 27 wherein said copyright criteria include an existence of printed half tone patterns.

1   30.   A server based system for classification of copyrighted images as recited in

2   Claim 27 wherein said copyright criteria include an existence of textual phrases that depict

3   celebrity images.

1   31.   A server based system for classification of copyrighted images as recited in

2   Claim 27 wherein said copyright criteria include an existence of textual phrases that depict

3   current events.

1   32.   A server based system for classification of copyrighted images as recited in

2   Claim 27 wherein said copyright criteria include a binary original of a copyright image.

1   33.   A server based system for detection of graphically-offensive material in

2   images comprising:

3   (a)   a first-defined interface between a client application and a server to
4   transfer images and related meta data;
5   (b)   a database to store and queue the images and said related meta data;
6   (c)   independent engine apparatus to automatically analyze the images
7   using a plurality of criteria related to said graphically offensive
8   material;
9   (d)   apparatus for analyzing the individual reviews into a single parameter
10   representing a likelihood value that an image includes said graphically-
11   offensive material;
12   and
13   (e)   a second-defined interface for conveying a result to said client
14   application.

1   34.   A server based system for detection of graphically-offensive material in
2   images as recited in Claim 33 wherein said criteria include the detection of known logos
3   associated with politically adverse organizations.

1   35.   A server based system for detection of graphically-offensive material in
2   images as recited in Claim 33 wherein said criteria include the detection of known logos
3   associated with hate crimes.

1   36.   A server based system for detection of graphically-offensive material in
2   images as recited in Claim 33 wherein said images include line art representation.

1   37.   A server based system for detection of graphically-offensive material in
2   images as recited in Claim 33 wherein said images include vector representation.

1   38.   A server based system for detection of graphically-offensive material in
2   images as recited in Claim 33 wherein said images include pixel representation.